Finnish Steel
and Metal Producers

6/1/2020

Public Consultation on draft ETS State Aid Guidelines

This document represents the response of Finnish Steel and Metal Producers to the draft ETS Guidelines published on the 14 January[1]. The EU ETS Guidelines are an essential element of the legal framework that aims at preventing the risk of carbon and investment leakage. In line with the spirit and wording of the EU ETS Directive, both free allocation and indirect costs compensation should ensure that the best performers do not face undue direct and indirect carbon costs. With EU ETS prices higher than in Phase III and expected to further rise in Phase IV, the impact of electricity prices ("indirect ETS costs") will increase substantially as electricity producers pass the carbon price on via the electricity price. Thus, it is essential that the new ETS Guidelines provide an adequate carbon leakage protection against rising indirect carbon costs Phase IV.

In this paper, we comment on the following areas of the draft ETS Guidelines; 1) eligibility, 2) conditionality, 3) level of Aid, 4) regional pass-through factors and 5) benchmarks. We then in appendix I provide legislative amendments with justifications, in our key areas. Finally in appendix II, we show why, given the electro-intensity and global competitive environment of copper and nickel should be included in the ETS guidelines carbon leakage list. Elsewhere, with regards the pass-through factors, it should be noted that all this information is supplemented by an attached memo prepared by EUROMETAUX, where they provide additional background information of why the geographical regions in the draft Guidelines should be altered.

1. Eligibility

Finnish Steel and Metal Producers have recently learned the hard way that the industries, where product prices are set globally and where electricity costs represent a major factor, should be on the list of eligible sectors for reasonable compensation. Compensation is necessary for several reasons; successful global climate change mitigation (at the moment Europe is experiencing a substantial increase in its carbon footprint due to the e.g. Indonesian imports replacing EU-products), promotion of circular economy (Asian steel production is predominantly based on extractive raw materials whereas the Finnish steel production is largely based on recycled scrap) and job loss (more than 80 000 people in the EU have lost their jobs due to raising imports since 2009).

We agree with the Commission's proposal that the list should be established based on the economic situation of the relevant sectors, considering two factors: 1) exposure to international commercial activity – with the price-taker criteria factored into this calculation and 2) exposure to indirect ETS costs being most relevant.

However, in the draft Guidelines, NACE 24.44 Copper production and NACE 24.45 'Other non-ferrous metals production' are not currently in the list of eligible sectors in Annex I but instead as one of the four sectors placed at a "medium risk" of carbon leakage where

[1] https://ec.europa.eu/competition/consultations/2020_ets_stateaid_guidelines/draft_ets_guidelines_en.pdf

the Commission would like to do a further qualitative evaluation. In its evaluation note, DG Competition notes that *"The Commission may decide to include additional sectors, in light of the feedback and evidence received in the public consultation, based on qualitative considerations provided the sectors concerned have at least an indirect carbon leakage indicator of 0.2 and that their carbon leakage risk as evaluated by the consultant in the study is at least medium".*

Both sectors, via the European Copper Institute and Nickel Institute will be making written submissions with further evidence on their carbon leakage exposure. As electro-intensive and globally competing industries, both sectors are highly exposed to carbon leakage and thus should be added to the list of eligible sectors in the final published Guidelines[2]. Elsewhere, it should be noted that steel, copper, nickel and other non-ferrous, through their products, are key materials for the energy climate transition[3]. These metals facilitate GHG emission reductions in numerous other sectors, from renewable energy systems, through energy efficient end-use appliances to electrified transport, heating and cooling systems. They are also a key material in renewable energy and battery production, strategic priorities of the European Commission.

2. Conditionality

Given our energy-intensive nature and the fact that we face global competition, the sectors eligible for compensation have the strongest incentive to be as energy efficient as possible. Thus, compensation should not be made conditional on additional requirements.

It should be noted that compensation of indirect costs does not distort incentives for energy efficiency investments because it is still based on very strict benchmarks reflecting the best performance in the sector. Furthermore, the "incentive effect" is also preserved by the fact that the benchmarks will be updated during the phase 4, so that companies have further interest to constantly improve their performance.

1) Especially, the proposed conditionality requirements to install an onsite renewable energy generation facility covering at least 50% of the electricity needs may even increase the fragmentation of the EU single market on electricity and does not match with the very large electricity consumption of industrial sites (> 3 TWh) and the physical limits of such on-site generation. Furthermore, considering the land requirements and also the regulatory restrictions to the installment of wind turbines, for some eligible sectors, this conditionality requirement is not technically nor financially feasible, hence it cannot be achieved realistically.

2) The requirement to invest at least 80% of the received state aid into investments to reduce direct emissions of the installation is not consistent with the scope of the Guidelines

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[2] https://ec.europa.eu/competition/consultations/2020_ets_stateaid_guidelines/draft_ets_guidelines_en.pdf

2 For more details, see the submissions of the Nickel Institute and the European Copper Institute to the public consultation.

3 https://www.ies.be/files/Metals_for_a_Climate_Neutral_Europe.pdf, p. 27, 30

4 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52014XC0628%2801%29

which are targeting indirect costs. Many of our technologically advanced sites do not have direct emissions to be mentioned any more.

3. **Level of Aid**

To enable a level playing field with outside EU-producers the aid intensity should be set at 100% of the benchmark for the best performers in order to be in line with the spirit and wording of the ETS Directive. A level of aid less than 100% undermines the spirit of the ETS Directive and the effectiveness of the carbon leakage provisions as there remains no comparable climate legislation in regions beyond the EU. Moreover, the risk of carbon and investment leakage is even greater today, given that we are seeing more higher EU EUA prices compared to what we have experience up until 2017.

Paragraph 26 of the draft Guidelines say that at the sectoral level, the level of compensation would be 75% until 2030. While aid should rather be set at 100% for best performers, a system of 75% compensation, provided a GVA limitation is included, is an important step to ensure better protection.

Degressive aid serves no function and instead, the best way to capture improvements in an installation's performance is to update the benchmark values. Indeed, the Commission explanatory note says that it "*considers that this update of the efficiency benchmarks is better suited to capture any potential efficiency gains in the sectors concerned than a per-se reduction of the aid intensity".* We agree with the Commission's assessment that aid intensity should be stable throughout the ETS period with a mid-term update of the electricity consumption efficiency benchmarks to consider most recent data and production processes.

In addition, paragraph 30 in the draft Guidelines introduce the possibility for Member States to further limit the exposure of beneficiaries to indirect costs as a function of their gross value added ("GVA"). This possibility is aimed at limiting the exposure of the most electro-intensive companies for whom indirect carbon costs, after applying 75% compensation, can make up a disproportionate amount of their GVA. The GVA limitation should be capped at 0.5% of GVA. In addition, the possibility should be open to all undertakings in the list of eligible sectors provided they reach the agreed threshold.

4. **Regional pass through factors & geographical regions**

Paragraph 10 plus Annex III define the maximum regional CO2 emission passthrough factors (tCO2/MWh) per geographical area. The draft Guidelines include the proposed geographical areas and a methodology for calculating the passthrough factors. The actual applicable factors for each region will be established at a later stage.

The main purpose of the CO2 emission passthrough factor in the Guidelines is to identify the impact of CO2 emission costs (EUA allowances price) on power prices in each market.

The draft Guidelines are correctly based on market principles where the emission passthrough factor is delinked from the total electricity generation's greenhouse gas footprint and decided by the marginal price setter in each given market.

However, the emission pass through factors and geographical areas are intrinsically interlinked and both need to be accurate. The proposal of splitting existing regions in more areas does not provide details on the underlying evidence and contradicts the political objective of linking more the national energy markets. Furthermore, the overly strict methodology for defining regional areas (1% price divergence in significant number of hours per year) does not capture the reality in certain energy markets where the emission pass through is influenced by the emissions pass through neighbouring member states due to interconnections.

For instance, the Nordic countries have been interconnected with a common price setting mechanisms the last 20-30 years, and there is sufficient information available to re-establish a single factor for this 'Nordic' region encompassing Norway, Sweden, Finland and Denmark. Elsewhere, the Central West Europe (CWE) region encompassing France, Germany, Belgium, Netherlands, Austria and Luxembourg have also registered a growing convergence over the years and should be re-established as a geographical region.

5. Benchmarks

Benchmarks are the best instrument to incentivise energy efficiency and emissions reduction. We support that the benchmarks be updated in 2025 to take into account technological developments in the sector (as mentioned above, this update as well as the stringency of the benchmarks makes the conditionality unnecessary).

We believe that benchmarks should be based on actual data of the 10% best performers (instead of single lowest installation) so that they reflect economic and technical feasibility within the relevant sector. Where appropriate, benchmarks should take into account also relevant energy carriers such as industrial gases.

We support the continuation of current definitions at Prodcom 8 level. We would recommend that the European Commission, working in tandem with a consultancy company, collect electricity data at Prodcom 8 level with the involvement of respective commodity associations which request them. This would be a similar exercise to the process run in 2011/2012.

With regards the fallback benchmarks, the 80% value should not be reduced further. Indeed, it should be noted that even with this level of aid, installations in the fall back benchmark category will only receive 60% of the incurred costs (75% of 80% = 60%).

ABOUT FINNISH STEEL AND METAL PRODUCERS

Finnish Steel and Metal Producers is the decisive voice of the Finnish Steel and Metal producers and major metal recyclers in Europe. With an annual turnover of €12bn, our members represent an essential part of the European machine- and construction value chain. Together with the European mining and recycling industry, we are leading Europe towards a more circular future through the endlessly recyclable potential of metals.

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APPENDIX I: Legislative Amendments

In this section, we provide some suggested legislative amendments to the Draft Guidelines. In the left column we give the Commission's text and in the right hand our suggested changes. All the suggested changes are marked in bold and italics. Below the suggested amendments we provide justifications.

A. Eligibility

Annex I of the Guidelines
Sectors deemed to be exposed to a genuine risk of carbon leakage due to indirect emission costs
NACE code Description
1. 14.11 Manufacture of leather clothes
2. 24.42 Aluminium production
3. 20.13 Manufacture of other inorganic basic chemicals
4. 24.43 Lead, zinc and tin production
5. 17.11 Manufacture of pulp
6. 17.12 Manufacture of paper and paperboard
7. 24.10 Manufacture of basic iron and steel and ferro-alloys
8. 19.20 Manufacture of refined petroleum products
9. 24.44 Copper production

10. 24.45 Other non-ferrous metals production
The methodology used to establish the list of eligible sectors relies on the carbon leakage indicator as defined in Article 10b of the revised ETS Directive, calculated based on indirect cost only, as a starting point. The indirect carbon leakage indicator required for eligibility is 0.2. In addition, eligible sectors need to have a trade intensity of at least 20% and an indirect emission intensity of at least 1 kgCO2/EUR. These values are calculated at NACE code 4 level using the dataset also used for establishing the Carbon Leakage List used for the allocation of free ETS allowances.

In addition, based on a qualitative assessment, two addition sectors NACE 24.44 Copper production and 24.45 have been added. Both sectors were evaluated by the consultant in the study as at least a 'medium' risk of carbon leakage and in light of the feedback and evidence received in the public consultation, are deemed to be at a significant risk of carbon leakage due to the indirect costs of the EU ETS.

B. Emission passthrough factors and geographical areas

We suggest the following changes

Paragraph 14.10	Proposed new text
'CO2 emission factor', in tCO2/MWh, means the weighted average of the CO2 intensity of electricity produced from fossil fuels in different geographic areas. The weight shall reflect the production mix of the fossil fuels in the given geographic area. The CO2 factor is the result of the division of the CO2	*'CO2 emission factor', in tCO2/MWh, means* ***the impact of CO2 emission costs on power prices in each market and reflects the price-setting technology. In areas were the actual pass-through factor comes from price influence from connected areas and not only from thermal generation within***

equivalent emission data of the energy industry divided by the gross electricity generation based on fossil fuels in TWh. For the purposes of these Guidelines, the areas are defined as geographic zones (a) which consist of submarkets coupled through power exchanges, or (b) within which no declared congestion exists and, in both cases, hourly day-ahead power exchange prices within the zones showing price divergence in euros (using daily ECB exchange rates) of maximum 1 % in significant number of all hours in a year. Such regional differentiation reflects the significance of fossil fuel plants for the final price set on the wholesale market and their role as marginal plants in the merit order. The mere fact that electricity is traded between two Member States does not automatically mean that they constitute a supranational region. Given the lack of relevant data at sub-national level, the geographic areas comprise the entire territory of one or more Member States. On this basis, the following geographic areas can be identified: Nordic (Sweden and Finland), Baltic (Lithuania, Latvia and Estonia), Iberia (Portugal and Spain), Czechia and Slovakia (Czechia and Slovakia) and all other Member States separately. The corresponding maximum regional CO2 factors are listed in Annex III. In order to ensure equal treatment of sources of electricity and avoid possible abuses, the same CO2 emission factor applies to all sources of electricity supply (auto generation, electricity supply contracts or grid supply) and to all aid beneficiaries in the Member State concerned;	***the area, it can be defined by using additional analysis based on electricity markets models in areas where the actual pass-through factor comes mainly from thermal generation within the area then CO2 emission factor'**, in tCO2/MWh, means the weighted average of the CO2 intensity of electricity produced from fossil fuels in different geographic areas. The weight shall reflect the production mix of the fossil fuels in the given geographic area. The CO2 factor is the result of the division of the CO2 equivalent emission data of the energy industry divided by the gross electricity generation based on fossil fuels in TWh. For the purposes of these Guidelines, the areas are defined as geographic zones (a) which consist of submarkets coupled through power exchanges, or (b) within which no declared congestion exists and, in both cases, **where the** hourly day-ahead power exchange prices within the zones showing price divergence in euros (using daily ECB exchange rates) of ~~maximum 1 % in~~ significant number of all hours in a year, **or c) for current regions CWE and Nordic, where short term limitations on interconnectors resulting in larger price differences and calculations of the covariances between areas is analyzed.** Such regional differentiation reflects the significance of fossil fuel plants **and for CWE and Nordic areas also reflects the impact from abroad,** for the final price set on the wholesale market and their role as marginal plants in the merit order. The mere fact that electricity is traded between two Member States does not automatically mean that they constitute a supranational region. ~~Given the lack of relevant data at sub-national level,~~ the geographic areas comprise the entire territory of one or more Member States. On this basis, the following geographic areas can be identified: Nordic **(Norway, Denmark, Sweden and**

	Finland), Central-West Europe (Austria, Belgium, Luxembourg, France, Germany and Netherlands), *Baltic (Lithuania, Latvia and Estonia), Iberia (Portugal and Spain), Czechia and Slovakia (Czechia and Slovakia) and all other Member States separately. The corresponding maximum regional CO2 factors are listed in Annex III* ***or factors decided by using additional analysis based on electricity markets models on request from Member States and approved by the Commission.*** *In order to ensure equal treatment of sources of electricity and avoid possible abuses, the same CO2 emission factor applies to all sources of electricity supply (auto generation, electricity supply contracts or grid supply) and to all aid beneficiaries in the Member State concerned;*
Justification See the attached memo for mor details.	

Further details on electricity markets are given in Annex (b).

C. Conditionality

We suggest the following changes

Paragraph 54	Proposed new text
Member States also commit to monitoring that beneficiaries covered by the obligation to conduct an energy audit under Article 8(4) of the Energy Efficiency Directive will: *(a) implement recommendations of the audit report, to the extent that the pay-back time for the relevant investments does not exceed [5] years and that the costs of their investments is proportionate; or alternatively* *(b) reduce the carbon footprint of their electricity consumption, for example, through installing an on-site renewable energy*	*Member States also commit to monitoring that beneficiaries covered by the obligation to conduct an energy audit under Article 8(4) of the Energy Efficiency Directive will:* *(a) implement recommendations of the audit report, to the extent that the pay-back time for the relevant investments does not exceed [~~5~~**2**] years and that the costs of their investments is proportionate; or alternatively* *(b) reduce the carbon footprint of their electricity consumption, for example, through installing an on-site renewable energy*

generation facility (covering at least 50% of their electricity needs), through a carbon-free power purchase agreement; or alternatively *(c) invest a significant share of at least 80% of the aid amount in projects that lead to substantial reductions of the installation's greenhouse gas emissions and well below the applicable benchmark used for free allocation in the EU Emissions Trading System.*	*generation facility* ~~***(covering at least 50% of their electricity needs),***~~ *through a carbon-free power purchase agreement; or alternatively* (~~***c) invest a significant share of at least 80% of the aid amount in projects that lead to substantial reductions of the installation's greenhouse gas emissions and well below the applicable benchmark used for free allocation in the EU Emissions Trading System.***~~

Justification

a) **Onsite renewable energy generation:** Given the huge amounts of electricity that are needed to produce non-ferrous metals, stipulating that 50% of this energy should come through "on-site renewable energy generation facility" is not even technically feasible (placing a wind park within the site to cover 50% of energy needs would demand a huge, unrealistic amount of space). Non-ferrous metals have signed several large PPAs with wind energy providers in recent years[4], but the investments in wind parks themselves should be done where there is space available for economic investments and the wind resources are readily available, not within industry sites.

b) **Linking with direct emissions (80%share):** The objective of indirects compensation is to reduce the risk of carbon leakage due to the increased electricity prices brought about by the EU ETS. Requesting using the major part of compensation to investments is not in line with the objective to reduce risk of carbon leakage risk. Furthermore, using a major part, up to 80% of indirects compensation to address direct emissions, is not in line with this objective and would have the opposite effect. In addition, requesting that electro-intensive industries use 80% of the electricity price compensation to address direct emissions may not be possible and not in line with the stated intentions of operating aid. Finally, electro-intensive industries have a major part of their investments and challenges linked to energy efficiency and a lower share of costs linked to direct emissions. To give a concrete example, having fully electrified its processes over the past 20-30 years, primary zinc refinery is now fully electrified with 99% of its emissions and only 1% of its emissions direct. Suggest that a zinc refinery should invest 80% of the compensation it receives for indirect carbon costs to address it's negligible 1% direct emissions would be nonsensical. In addition, it would give the wrong message on encouraging industrial electrification.

[4] For more information on the corporate sourcing of intermittent renewable electricity in the non-ferrous metals sector, please see the following link https://www.ceps.eu/wp-content/uploads/2018/12/Eurometaux%20presentation%20RES%20Corporate%20Sourcing%20CEPS%2029.01.2019.pdf

D. Benchmarks

We suggest the following text:

Paragraph 14.13	Proposed new text
(13) 'electricity consumption efficiency benchmark', in MWh/tonne of output and defined at Prodcom 8 level[9], means the product-specific electricity consumption per tonne of output achieved by the most electricity-efficient methods of production for the product considered. The electricity consumption efficiency benchmark update shall be consistent with Article 10a(2) of the EU ETS Directive. For products within the eligible sectors for which fuel and electricity exchangeability has been established in section 2 of Annex I to Commission Delegated Regulation (EU) 2019/331[10], the definition of electricity consumption efficiency benchmarks is made within the same system boundaries, taking into account only the share of electricity for the determination of the aid amount. The corresponding electricity consumption benchmarks for products covered by eligible sectors are listed in Annex II to these Guidelines;	*(13) 'electricity consumption efficiency benchmark', in MWh/tonne of output and defined at Prodcom 8 level[9], means the product-specific electricity consumption per tonne of output achieved by the most electricity-efficient methods of production for the product considered.* ~~***The electricity consumption efficiency benchmark update shall be consistent with Article 10a(2) of the EU ETS Directive. For products within the eligible sectors for which fuel and electricity exchangeability has been established in section 2 of Annex I to Commission Delegated Regulation (EU) 2019/331[10], the definition of electricity consumption efficiency benchmarks is made within the same system boundaries, taking into account only the share of electricity for the determination of the aid amount.***~~ *The corresponding electricity consumption benchmarks for products covered by eligible sectors are listed in Annex II to these Guidelines;*

Justification

Overall, benchmarks are the best methodology to incentivise energy efficiency and emissions reduction. We believe that benchmarks should be based on actual data for 10% best performers and thus, disagree with part of the methodology to decide the benchmark.
We disagree that benchmarks should be linked to the ETS article 10a (2) as an arbitrary yearly decrease will not be based on real data.
Elsewhere, we support the continuation of current definitions at Prodcom 8 level. We would recommend that the European Commission, working in tandem with a consultancy company, collect electricity data at Prodcom 8 level with the involvement of commodity associations. This would be a similar exercise to the process run in 2011/2012.

APPENDIX II: Economic need for compensation and carbon leakage risk

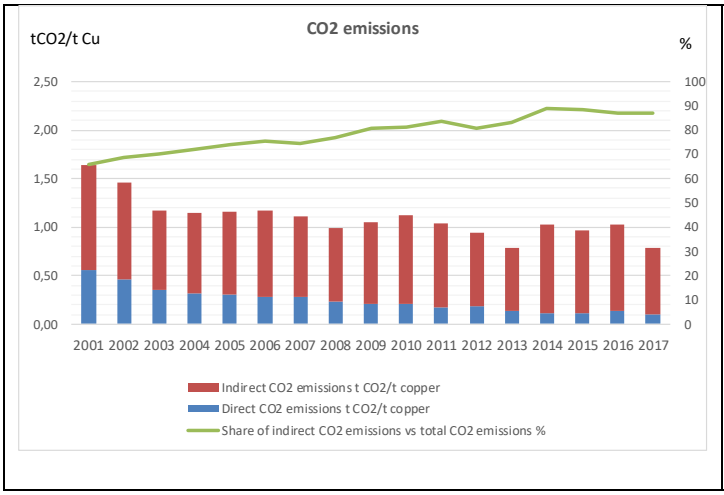
Prices of products from energy intensive industries are generally set in a global market. Therefore, cost increases in Europe cannot be transferred into customer prices without losing significant market share, thus creating a competitive disadvantage compared to producers outside Europe.

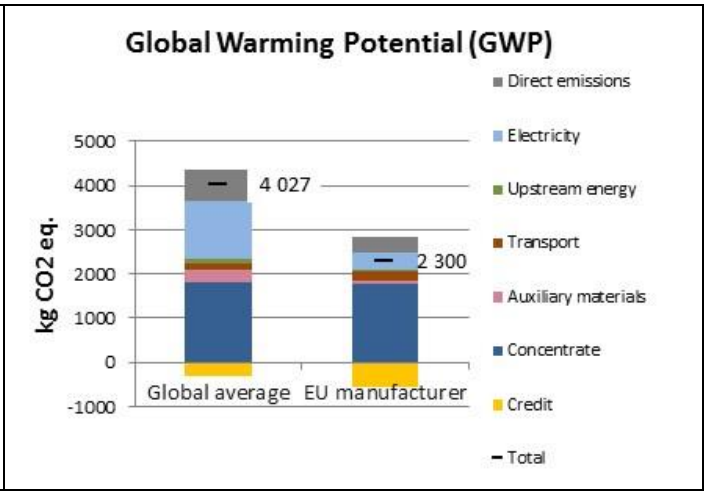
The power prices are increased by the EU ETS prices and the effect varies between regions in Europe. In the Central West Europe is 0,76 t CO2 per MWh, this means that if the allowance price is 30 € per tonne CO2, electricity prices will increase by 23 € per MWh. The market price effect deviates from the average emission intensity as a result of the European electricity market design with a marginal price setting method (merit order).

i. Copper

The copper industry is also very electro-Intensive. The share of indirect CO2 emissions for the whole sector (NACE Code 24.44) is 60%, while for the EU Smelters and refiners is 75% or higher. In recent years the copper industry has highly electrified its production, which contributed to energy efficiency and reduction of direct CO2 emissions.

The European copper production has much lower footprint than global competitors. The carbon footprint of the global average copper cathode is 4 t CO2 and the acidification potential (SO2 emissions) is 60 kg SO2 (based on cradle-to-gate life cycle assessment). EU copper producers report twice lower CO2 emissions and only a third of the SO2 emissions of the average global copper cathode. A key reason for this lies in the high input of European copper smelters' profit margins are lower in the EU. EU companies shall cover all costs, including maintenance, auxiliary materials, wages, energy costs including indirect emissions cost with the same revenues as global competitors. This significantly reduces competitiveness.





A recent study by the international consultancy Wood Mackenzie demonstrates that for the Smelting processors, exposure to indirect emissions costs represents up to 26% of GVA, 25% of operating costs, 87% of operating margin and finally, 104% of profit margin at CO2 price 30 Euro/ton. These ratios may increase as a result of further electrification to decarbonize as well as end of pipe filtration technologies to comply with increasingly stricter environmental regulations in Europe, while competitors in non-EU countries do not face such policies and

environmental restrictions. The resulting erosion of profit margins affects high-cost producers located in the EU severely. Supply contracts generally have terms of 10 years or longer. Copper smelters must estimate how long-term the energy costs will develop, e.g. by 2030.

		2017	2017	2018	2018	2019	2019	2017	2017	2018	2018	2019	2019
	CO2 Price €/t CO2	5,84	5,84	15,91	15,91	24,81	24,81	30	30	30	30	30	30
Operation	Ratio	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Smelter	Indirect emissions costs/GVA*	1%	4%	2%	14%	2%	20%	4%	21%	3%	26%	3%	25%
Refinery	Indirect emissions costs/GVA*	1%	1%	1%	1%	2%	6%	3%	6%	3%	7%	3%	7%
Smelter	Indirect emissions costs/Operating costs	1%	5%	2%	11%	3%	17%	4%	25%	3%	20%	4%	21%
Refinery	Indirect emissions costs/Operating costs	1%	4%	3%	8%	5%	13%	6%	18%	5%	15%	6%	16%
Smelter	Indirect emissions costs/Operating margin	1%	7%	minus	32%	3%	72%	4%	34%	minus	61%	3%	87%
Refinery	Indirect emissions costs/Operating margin	1%	2%	2%	6%	3%	9%	3%	9%	33%	11%	3%	11%
Smelter	Indirect emissions costs/Profit margin	1%	9%	minus	55%	minus	40%	6%	45%	minus	104%	minus	48%
Refinery	Indirect emissions costs/Profit margin	1%	2%	2%	8%	3%	11%	4%	12%	4%	15%	4%	14%

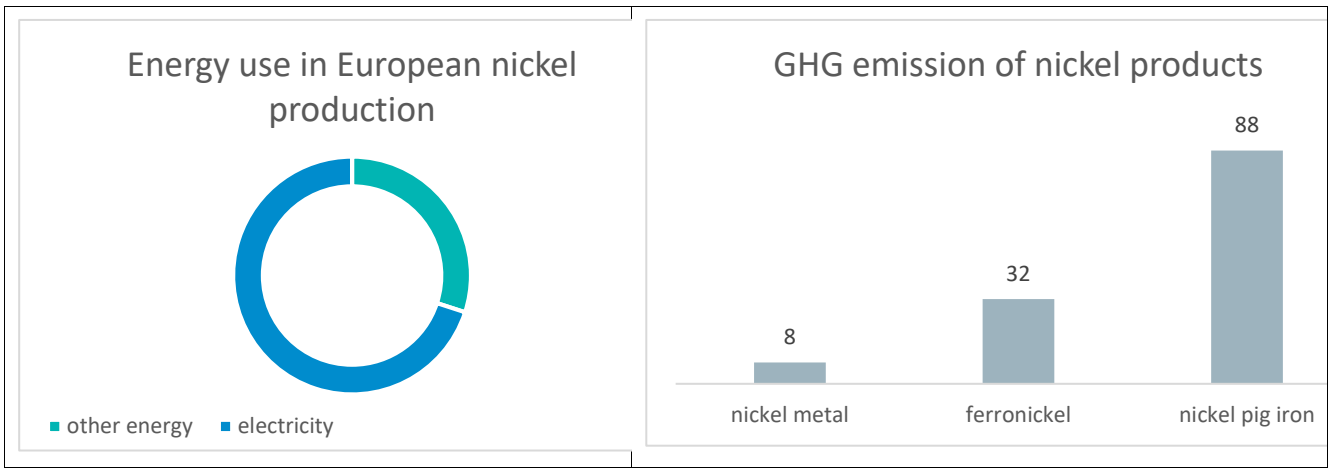
Source: Wood Mackenzie

If the copper sector does not receive indirect cost compensation, the EU smelters would not be able to sign long term contacts for copper concentrates, because the miners would not accept any CO2 related deductions which do not apply worldwide.

ii. Nickel

European nickel producers are known to be amongst those with the highest energy efficiencies globally. Between 1999 and 2011, the greenhouse gas emissions from nickel production were reduced by more than 40%, as shown in published and peer reviewed life cycle data collected by the nickel industry. In Europe, electricity accounts for roughly 70% of the total energy used in nickel production. Around 70% of the global nickel production goes into stainless steel production. Nickel metal from Europe´s nickel producers competes with other nickel products produced outside Europe, such as ferronickel (around 30% nickel content) and nickel pig iron (3-15% nickel content).

These nickel products are characterized by production processes with far higher emission intensities. Compared to nickel metal, ferronickel shows a 4 times higher carbon footprint. Nickel Pig Iron, a product which predominantly is produced in China, has on average a carbon footprint which is 10-12 times higher. Any production allocation would therefore result in an extreme case of carbon leakage.



Different than in other metals industries, there is no standard process to produce nickel. The European nickel production processes are tailored to the range of raw materials inputs (e.g. nickel matte, nickel oxide sinter) which are imported to the European nickel refineries and vary in chemical and mineralogical composition. In order to achieve a high resource efficiency and to keep the production processes competitive, the processes are furthermore tailored to recover as much as possible potential by-products, such as cobalt, copper and platinum group metals.

The processes also vary in view of their electro intensities. While some processes are completely electrified, others use different forms of fuel as major energy input. As a highly energy intensive industry with energy being a major share of the total production costs, the improvement of energy efficiency is a part of our daily business.

Power costs for European nickel producers accounts on average for about 15% of production costs and can be as high as 25% of the total production costs. Electricity is already a substantial cost element. At an estimated carbon price of 30€/t CO2, the electricity prices increase and would be above 20%. The impact on the operational margin of increasing electricity prices is therefore potentially significant.

Assuming a carbon price of 30 €/t CO2 and an emission factor of 0,76 tCO2/MWh, European nickel producers would be exposed to an indirect cost of 8,8% of GVA. For NACE 2445 (under which nickel can be found), the indirect costs are estimated to be 4,2% of GVA.

Nickel prices are set globally at metal exchanges such as LME. European nickel refiners are paid for the treatment of the respective nickel intermediates (e.g. nickel matte and nickel oxide sinter) which are shipped from countries such as e.g. Canada or Russia to their installations for refining into nickel metal. The European nickel refiners are paid a treatment and refining charge. The output prices are therefore not relevant when assessing the profit margins of the nickel industry. They are independent from the LME price.

The profit margins of European nickel producers are reduced by regional costs such as indirect ETS costs through increased electricity prices. Competitors importing similar raw materials for similar treatment and refining to China do not experience these costs. Aa a consequence, the profit margins of European nickel producers are significantly reduced.

As a price taker industry, we cannot pass on such local or regional costs to our customers which purchase the raw materials on a global market. Competing regions do not face such costs and do not have to pass them on to their customers.